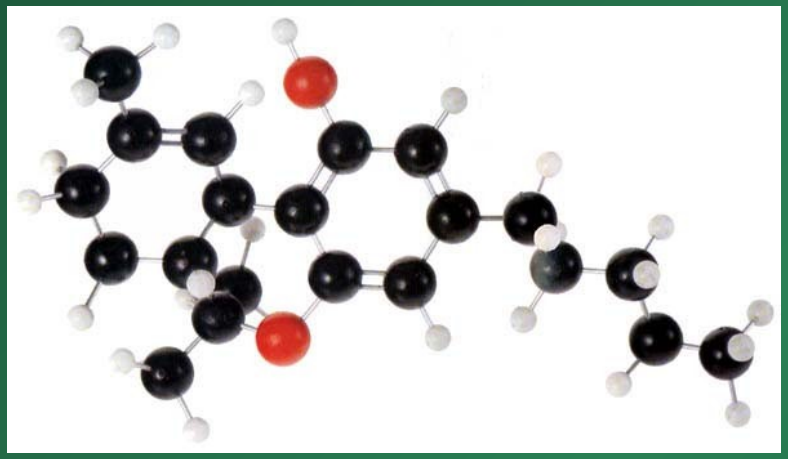


MARIJUANA

Use, Abuse, Addiction

LEARNING OBJECTIVES

- Forms of Marijuana
- Methods of Use
- Pharmacology
- Impairment
- Addiction
- Reduce the impact of Marijuana use on the Army

Quote from a Drug & Alcohol Counselor:

“Some of us believe that marijuana is the most dangerous illegal drug because no one thinks it’s dangerous.”

WHAT IS THC?

- **Delta 9 – Tetrahydrocannabinol (THC) is the active ingredient in marijuana that causes users to feel *high*; comes from the Hemp (Cannabis) plant.**
- **Marijuana is a psychoactive or mind-altering drug.**
- **Psychoactive drugs produce a mind state similar to that of**

WHY IS IT ILLEGAL?

- **Latest research proves marijuana is both psychologically and physically addictive.**
  Prevention Research Institute
- **Can cause birth defects.**
- **Marijuana is often a *gateway drug.***
- **Classified by the DEA as a Schedule I Controlled Substance.**

FORMS OF THC

1. **Marijuana**

2. **Hash/Hashish**

3. **Hash Oil**

HOW IS IT USED?

- Marijuana refers to the leaves and flowering tops of the Hemp (Cannabis) plant.)
- Smoked in hand-rolled cigarettes called **joints** or hollowed-out cigars called **blunts**. Also smoked in small pipes known as one-hitters, tooters or a larger water pipe called a **bong**.
- Can be mixed into food or brewed as a tea.

HOW IS IT USED (Con’t)

- **Hashish: Resinous material that is extracted and pressed into balls, sheets, or chunks. Smaller pieces are broken off and smoked in a pipe. Average THC content of hashish in the United States is 11.22%.**

- **Hash Oil: Dark-colored, gummy liquid that averages 42.51% THC content. It is smoked in a water pipe or by putting a few drops on a cigarette or joint.**

DURATION OF EFFECTS

- 2-3 HOURS

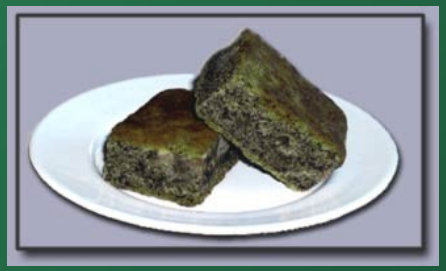
Pharmacology Of Marijuana

- Recent domestic report revealed as high as 29.86% THC content versus less than 1-3% in 1974.
- Much more dangerous today.
- Mixing other drugs with THC by drug dealers and users.
- Also produced synthetically and available by prescription (Marinol.) Used to control nausea in cancer patients and to stimulate appetite in

Pharmacology (Con't)

- <u>Smoking</u> – Marijuana is absorbed through the capillaries in the lungs.

- <u>Eaten / Drank</u> – The chemicals in marijuana are absorbed into the intestines.



- <u>Mixed With Other Drugs</u> – Marijuana is sometimes smoked with cocaine, crack, methamphetamine, PCP and other drugs sprinkled or

Mixed With Other Drugs

Slang Names for combinations with a joint or blunt:

With crack: ***geek joints, primos, turbos.***

With PCP: ***boats, sherms, dust blunts.***

With formaldehyde or formaldehyde/PCP:

fry, amp, dank, wets.

These variations make it more unpredictable.

May cause anxiety, panic attacks, aggression.

OBSERVABLE INDICATIONS OF USE

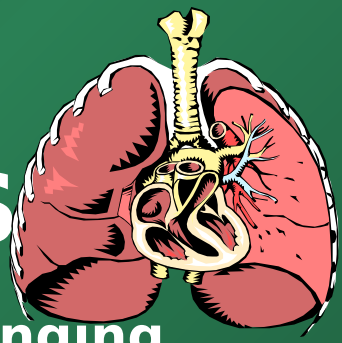
- Smell of smoke on breath and clothes.
- Bloodshot eyes.
- Talkativeness.
- Inappropriate laughter.
- Dry mouth.
- Dilated pupils.

Effects of Marijuana (T

- Euphoria
- Short Term Memory Loss
- Increased Appetite
- Bloodshot Eyes
- Dry Mouth / Throat
- Increased Heart Rate
- Lowered Blood Pressure
- Loss of Coordination
- Paranoia
- Vivid Hallucinations
- Panic / Anxiety Attacks
- Psychosis
- Dependence

MARIJUANA USE LEADS TO:

- Lung Problems
- Brain Damage
- Heart Damage
- Reproductive Problems
- Behavioral Problems
- Addiction



THC EFFECTS ON LUNGS

- **“Even infrequent use can cause burning and stinging of the mouth and throat, often accompanied by a heavy cough. Someone who smokes marijuana regularly may have many of the same respiratory problems that tobacco smokers do, such as daily cough and phlegm production, more frequent acute chest illness, a heightened risk of lung infections, and a greater tendency to obstructed airways. Smoking marijuana increases the likelihood of developing cancer of the head or neck, and the more marijuana smoked the greater the increase.”**

National Institute on Drug Abuse (NIDA)

EFFECTS ON LUNGS (Con't)

NIDA reports: "Marijuana use also has the potential to promote cancer of the lungs and other parts of the respiratory tract because it contains irritants and carcinogens. In fact, marijuana smoke contains 50 to 70 percent more carcinogenic hydrocarbons than does tobacco smoke. It also produces high levels of an enzyme that converts certain hydrocarbons into their carcinogenic form—levels that may accelerate the changes that ultimately produce malignant cells. Marijuana users usually inhale more deeply and hold their breath longer than tobacco smokers do, which increases the lungs' exposure to carcinogenic smoke. These facts suggest that, puff for puff, smoking marijuana may increase the risk of cancer more than smoking tobacco."

THC EFFECTS ON BRAIN

- **NIDA reports: “Many THC receptors are f… the parts of the brain that influence pleasure, memory, thought, concentration, sensory and tim… perception, and coordinated movement(s).”**

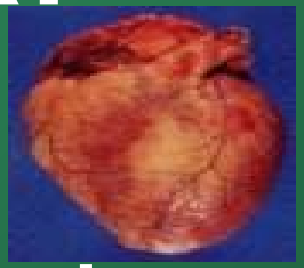
  “The short-term effects of marijuana can include problems with memory and learning; distorted perception; difficulty in thinking and problem solving; loss of coordination; and increased heart rate. Research findings for long-term marijuana use indicate some changes in the brain similar to those seen after long-term use of other major drugs of abuse.”

-

EFFECTS ON BRAIN (Con’t)

- Smoking marijuana causes some neurotransmitters to clump up and become inactive.
- This clumping is same as seen in Alzheimer patients.
- Neurotransmitters send messages throughout the brain for body functions.

THC EFFECTS ON HEART



One study (NIDA) has indicated that a user's **risk of heart attack more than quadruples in the first hour after smoking marijuana.** The researchers suggest that such an effect might occur from marijuana's effects on blood pressure and heart rate and reduced oxygen-carrying capacity of blood.

THC AND REPRODUCTIVE ORGANS

Male Specific:

- Reduces the male hormone testosterone.
- Can cause sex organs to not functio properly.
- Greatly reduces sperm count.

Female Specific:

- Testosterone levels increase.
- Decreased sexual pleasure.
- Disrupts menstrual cycles and ovulation.

OTHER ADVERSE HEALTH EFFECTS OF MARIJUANA

"THC impairs the immune system's ability to fight off infectious diseases and cancer. In laboratory experiments that exposed animal and human cells to THC or other marijuana ingredients, the normal disease-preventing reactions of many of the key types of immune cells were inhibited. In other studies, mice exposed to THC or related substances were more likely than unexposed mice to develop bacterial infections and tumors."

MARIJUANA AND DRIVING PROBLEMS

- **Marijuana intoxication impairs driving skills because it diminishes:**
  - **REACTION TIME**
  - **MOTOR COORDINATION**
  - **ABILITY TO MAINTAIN AND SHIFT ATTENTION**

Driving Skills (Con’t)

- **In a laboratory study at NIDA's Addiction Research Center in Baltimore that controlled for alcohol's confounding effect, Dr. Heishman tested marijuana's effects on the functional components of driving. Study subjects smoked a marijuana cigarette, waited 10 minutes, then smoked another cigarette. Both cigarettes contained either 0, 1.8, or 3.6 percent THC. Twenty minutes after smoking the cigarettes, the subjects were given a standard sobriety test similar to a roadside sobriety test. The test showed that marijuana significantly impaired their ability to stand on one leg for 30 seconds or touch their finger to their nose. As the dose of THC increased, the subjects swayed more, raised their arms, and had to put their feet down in an attempt to maintain their balance. Subjects also committed 2.5 times more errors when they attempted to touch their nose with their finger.**

Nat’l Institute on Drug Abuse, NIDA Notes, Vol 11, N1

Marijuana and Job Performance

- **"Employees who report marijuana use are different from nonusers," said Dr. Lehman. They are much more likely than nonusers to have arrest histories, low self-esteem, high rates of depression, and friends who are deviant. Many marijuana smokers also have alcohol-related problems. One-third of marijuana users in the surveys reported they drank frequently, one-half said they got drunk, and 60 percent reported a problem with alcohol use, according to Dr. Lehman."**

- National Institute on Drug Abuse, NIDA Notes, Vol 11, N1

Job Performance (Con't)

- **"This behavioral pattern in the personal backgrounds of marijuana-smoking employees was associated with negative attitudes toward work and job performance, Dr. Lehman said. The surveys found that marijuana users were less likely than nonusers to commit to the organization, had less faith in management, and experienced low job satisfaction. These workers reported more absenteeism, tardiness, accidents, workers' compensation claims, and job turnover than workers who had not used marijuana. They were also more likely to report to work with a hangover, miss work because of a hangover, and be drunk or use drugs at work.**

- Nat'l Institute of Drug Abuse, NIDA Notes, Vol 11, N1

TOLERANCE & WITHDRAWAL

- **Both tolerance and mild withdrawal effects have been noted in Marijuana users.**

- **THC produces the same chemical reactions in the body that reinforce dependence on other drugs like cocaine and heroin.**

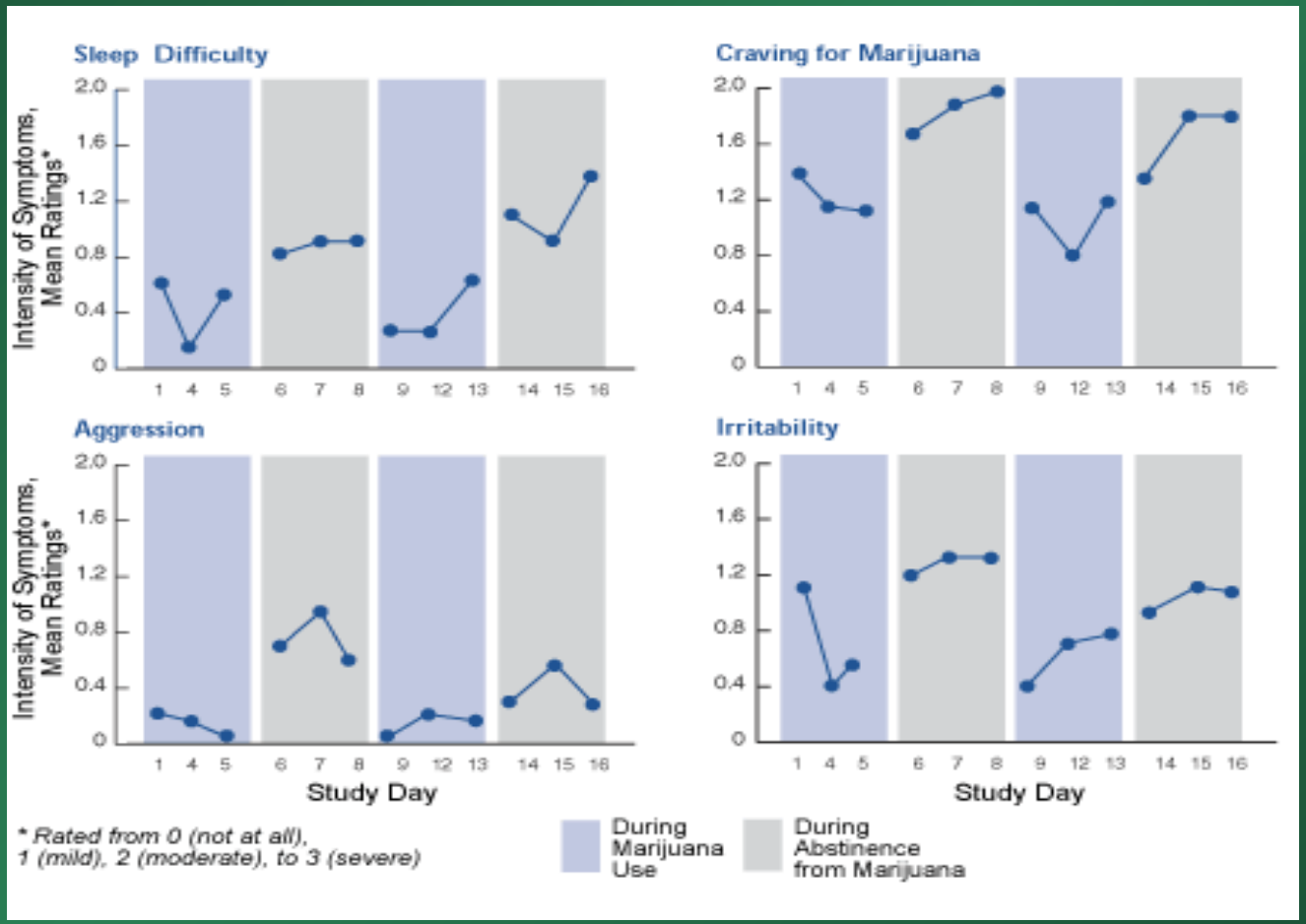
Hazeldon Prevention Reference Library

MARIJUANA WITHDRAWAL

- **“Marijuana smokers living at home reported “clinically significant” withdrawal symptoms – such as sleep difficulty, marijuana craving, aggression, and irritability – during periods of abstinence from the drug. The participants’ self-reports were confirmed, in part, by observers who reported increased restlessness and irritability among the marijuana users when they were not smoking.”**

- Nat’l Institute on Drug Abuse, NIDA Notes, Vol 17, N3

MARIJUANA WITHDRAWAL (Con't)



Effects of Withdrawal

While the effects of withdrawal have been described as mild and non life-threatening, they do in

- **Severe anxiety**
- **Lack of pleasure**
- **Severe headaches**
- **Nausea**
- **Inability to sleep**

SIGNS OF OVERDOSE

- **Anxiety**
- **Extreme drowsiness**
- **Slurred Speech**
- **Acute Panic Reaction**

Hazelden Prevention Reference Library

ADDICTION TO MARIJUANA

“A PERSON IS CONSIDERED ADDICTED IF HE OR SHE COMPULSIVELY AND UNCONTROLLABLY USES, CRAVES AND SEEKS DRUGS, INCLUDING MARIJUANA, EVEN IN THE FACE OF REPEATED NEGATIVE HEALTH AND SOCIAL CONSEQUENCES.”

Hazelden Prevention Reference Library

420

- 420 is a symbol of cannabis and its culture.
- 4:20 is regarded as the universal time to get high whether 4:20 a.m. or p.m.
- April 20 (4/20) is a special day.
- 420 logo is printed on T-shirts, hats, posters, etc.

"Our First Line of Defense"

THE ARMY URINALYSIS PROGRAM

ARMY DRUG POLICY

- **ZERO TOLERANCE**

Additional Information

Additional information on marijuana can be found by contacting the Army Substance Abuse Program or by visiting www.acsap.army.mil

Army Substance Abuse Program Sites

Landstuhl ASAP Clinic
Bldg. 3820, Rm 208
LRMC
DSN: 486-6121 CIV: 06371-86-6121

Heidelberg ASAP Clinic
Bldg. 3752, Rm. 306
104 Romerstrasse
DSN: 370-6069 CIV: 06221 57-6069

Mannheim ASAP Clinic
Bldg. 214, Rm. 1
Sullivan Barracks
DSN: 385-2601 CIV: 06217-30-2601

Darmstadt ASAP Clinic
Bldg. 4006, Rm. 302
Cambria Fritsche Kaserne
DSN: 348-6750 CIV: 06151 69-6750

Alcohol & Drug Control Officer:
ADCO, ASAP Division Office, Bldg. 128, Patton Barracks, DSN: 373-7475 CIV: 06211-17-7475

WARRIOR

Personal Courage: Possess the Personal Courage not to use drugs or abuse alcohol and to notify the Chain of Command of Soldiers that do.

Respect: Show your Respect to the Army, your unit, fellow Soldiers, and yourself by staying drug free and drinking responsibly.

Integrity: Stay true to the Army Values and Warrior Ethos by supporting the Army's drug and alcohol policies.

Duty: Do your duty as a Soldier and stay mentally and physically tough by not using drugs or abusing alcohol.

Excellence: Exhibit honorable behavior on and off duty - don't be a substance abuser!

Question and Answers

Question 1

The potency of marijuana is significantly higher now than it was 10 years ago.

True or False?

Answer is True.

Question 2

Latest research shows marijuana is physically addictive.

True or False?

Answer is True.

Question 3

Marijuana withdrawal can cause the user to experience:

A. Lack of pleasure
B. Anxiety and Panic
C. Severe headaches
D. Nausea
E. All of the above

Answer is E.

Question 4

Marijuana causes brain cells to become inactive or “clump up.”

True or False?

Answer is True.

Question 5

The risk of heart attack more than quadruples in the first hour after smoking marijuana.

True or False?

Answer is True.

Question 6

Marijuana use can cause sex organs to not function properly in men and decreased sexual pleasure for women.

True or False?

Answer is True.

Question 7

Marijuana intoxication impairs driving skills because it diminishes:

A. Reaction time
B. Motor Coordination
C. Ability to maintain and shift attention.
D. All the above

D. All the above

Question 8

Employees who used marijuana reported:

A. Arrest histories
B. Low self esteem
C. High rates of depression
D. Alcohol related problems
E. All the above

E All the above

Question 9

The Army’s Policy regarding Marijuana use

A. Don’t ask, don’t tell
B. Zero Tolerance

B. Zero Tolerance

Question 10

Each US Army Garrison (USAG) has an Army Substance Abuse Program (ASAP) you can access for questions or assessment.

A. True
B. False

A. True

STEPS TO YOUR CERTIFICATE!

CLICK HERE to send an acknowledgement by email. Don't forget to provide the following in the body:

1. Full Name
2. Garrison
3. Grade or Rank
4. Duty Phone
5. DEROS
6. Do you supervise personnel?
7. Completion date of your review of this presentation.